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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/790,413	03/01/2004	Farrokh Farzin-Nia	ORM / 244US	1445

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EXAMINER

DONAHOE, CASEY D

ART UNIT	PAPER NUMBER
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3732

DATE MAILED: 01/11/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/790,413	Applicant(s) FARZIN-NIA ET AL.	
	Examiner Casey Donahoe	Art Unit 3732	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☐ Claim(s) 9-20,30-35,37,39,40 and 45-47 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 9,10,12-18,30-35,37,39 and 40 is/are rejected.
- 7) ☒ Claim(s) 11,19,20 and 45-47 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>6/30/04</u> . | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Election/Restrictions

Applicant's election without traverse of claims 9-20, 30-35, 37, 39-40, and 45-47 in the reply filed on 11/29/2005 is acknowledged.

Claims 1-8, 21-29, 36, 38 and 41-44 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected species, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on 11/29/2005.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 14 and 15 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 14 recites the limitation "said first and second removable stops" in lines 1-2. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 9, 13, 16, 17, 18, 34, and 37 are rejected under 35 U.S.C. 102(b) as being anticipated by Richards (US 5,306,142).

Regarding claims 9 and 13, Richards discloses an archwire assembly (Figs. 10-11), including: an archwire (79); a crimpable sleeve (82) adapted to slide along the archwire (column 1, lines 39-41); and an abrasive/friction-creating substance (85) applied to the crimpable sleeve (column 6, lines 25-38).

Regarding claims 16 and 17, the friction-creating substance (46), as seen in Fig. 5, at least partially fills the crimpable sleeve and at least partially coats the archwire, especially when crimped (column 1, lines 54-57)

Regarding claim 18, the friction-creating substance is inherently removable, because it could be scraped or broken off when dried by means of a dental instrument, such as a scaler.

Regarding claims 34 and 37, Richards discloses an inherent method of applying a crimpable sleeve to an archwire and limiting the movement of the sleeve via the friction-creating substance.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 10, 12, 14, 15, 30-33, 39, and 40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Richards in view of Bergersen (US 4,764,112).

Regarding claims 30-32, Richards, as described earlier, discloses a crimpable sleeve, movable along the archwire, with a hook that may be used to anchor an elastic, ligature or spring at any point along the archwire (abstract). Richards fails to disclose an additional removable stop applied to the archwire. Bergersen discloses a removable distal stop, which secures the archwire within the mouth and permits relatively easy removal of the wire from the teeth as well as easy position adjustability, which is required as the posterior teeth or moved (column 1, lines 29-36, 63-66). Although the crimpable sleeve of Richards is securely attached to the wire, it may not be positioned directly next to the buccal tube, thus allowing movement of the archwire. It would have been obvious to one of ordinary skill in the art at the time of the invention to use the stops disclosed by Bergersen on the archwire assembly disclosed by Richards in order to secure the archwire from medial/distal translation and to provide a more efficient and less time-consuming means for repositioning the wire when needed (column 2, lines 10-15).

Regarding claim 33, the stop disclosed by Bergersen includes a resilient band (40), which stretches across the buccal tube (column 3, lines 46-57) in order to prevent both medial and distal translation.

Regarding claims 10 and 12, the assembly now includes first and second removable stops positioned adjacent the free ends of the archwire, with the crimpable sleeve positioned between them.

Regarding claims 14 and 15, Bergersen fails to disclose the exact amount of force required to slide the removable stops along the archwire. Because the removable stops are required to slide along the archwire only under an appropriate exertion of manual force (so that they may be removed), but still resist sliding under nominal forces, the disclosed removable stops meet the same general conditions disclosed by the Applicant. Applicant's claimed force values of a sliding force greater than the weight of a crimpable sleeve and a sliding force of one half pound are not disclosed to provide any new or unexpected results which would lie outside the obvious range of sliding force values. It would have been obvious to one of ordinary skill in the art at the time of the invention to make the sliding force greater than the weight of the crimpable sleeve disclosed by Richards and approximately equal to one half pound, since it has been held that discovering an optimum value of a variable involves only routine skill in the art.

Regarding claims 39 and 40, Richards discloses an method of using an archwire assembly, which inherently includes applying a plurality of brackets (24 in Fig. 1) to the teeth, securing the archwire assembly to the brackets, and crimping the crimpable

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sleeve along the archwire. Bergersen discloses the additional step of removing his stop in order to reposition the archwire when necessary.

Claims 34 and 35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Balenseifen (US 4,571,179).

Balenseifen discloses a novel orthodontic archwire, which is arcuately curved to provide precise and detailed movement of teeth (column 1, line 63 - column 2, line 12). The disclosed invention includes a crimpable sleeve (18) applied to the archwire for supplying additional force to correct and retain the teeth in a better alignment (column 3 lines 1-4), which is crimped in order to limit its movement (column 3, lines 57-64). It is well known to package archwires and orthodontic appliances for delivery to a doctor's office. Because, the crimpable sleeve and archwire are specifically disclosed for use with each other, and the archwire is not a standard wire that could be found in the doctor's office, it would have been obvious to one of ordinary skill in the art at the time of the invention to package the entire archwire assembly together for delivery. In doing so, the practitioner has all the components necessary to carry out the disclosed orthodontic treatment.

Allowable Subject Matter

Claims 11, 19-20, and 45-57 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion


The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

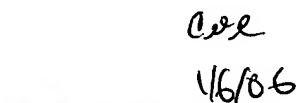
Casey (US 5,766,005), Cohen (US 5,154,613), Dellinger (US 4,526,540), Orikasa (US 5,259,760), and Forster (US 6,425,758) are made of record.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Casey Donahoe whose telephone number is (571) 272-2812. The examiner can normally be reached on Monday - Thursday (7:30 - 5:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kevin Shaver can be reached on (571) 272 -4720. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


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